

WHAT IS CLAIMED IS:

1. A relay apparatus for transferring information from at least one server to at least one client via a network, said server performing stream information service in its own information transmission format, said apparatus comprising:

first communication means for performing communication with said client in a communication method in correspondence with said client;

- 10 second communication means for performing communication with said server in a communication method in correspondence with said server;

first conversion means for converting a request message to said server, received via said first communication means from said client, to a request message for said server; and

20 second conversion means for converting information, received via said second communication means from said server, to information in a format for said client.

2. The relay apparatus according to claim 1, wherein said stream information service is service of moving video information obtained by predetermined image pickup means.

3. The relay apparatus according to claim 1, wherein said first communication means includes delivery means for executing transmission of a reply to said client in accordance with said server.

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4. The relay apparatus according to claim 1, wherein said second communication means includes delivery means for executing transmission of a reply in accordance with said client.

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5. The relay apparatus according to claim 1, wherein said second communication means and said first conversion means operate independently of a server to be connected.

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6. The relay apparatus according to claim 1, wherein a request included in a protocol by said first communication means and that included in a protocol by said second communication means do not always one-to-one correspond with each other.

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7. The relay apparatus according to claim 1, wherein in a protocol by said first communication means, one reply is made to one request from a client, while in a protocol by said second communication means, a plurality of replies are made to one request.

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8. The relay apparatus according to claim 1, wherein  
said second conversion means holds information obtained  
by said second communication means, and when said second  
5 conversion means receives a request from said client,  
said second conversion means converts the information  
into information in a format for said client, thus  
removes difference between protocols which do not always  
one-to-one correspond with each other.

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9. The relay apparatus according to claim 1, wherein  
a protocol by said first communication means is the HTTP  
protocol.

15 10. A system having a plurality of relay apparatuses  
claimed in claim 1.

11. A relay apparatus, provided between a server which  
serves stream data via a computer network and a client,  
20 for transmitting video data from said server to said  
client, comprising:

message transmission/reception means for  
transmitting/receiving a message from another program;

message interpretation means for interpreting the  
25 message;

connection management means for managing  
connection with a client;

video delivery means for delivering obtained video  
data to a plurality of clients;

5 information delivery means for delivering obtained  
various information to a plurality of clients;

switching means for switching a method for  
transmitting a request message and a reply in accordance  
with a video server; and

10 execution means for executing transmission of a  
request message and a reply in accordance with a video  
server.

12. The relay apparatus according to claim 11, wherein  
15 said respective means operate as programs.

13. The relay apparatus according to claim 11, wherein  
said video delivery means, said information delivery  
means, said delivery method execution means, said  
20 message interpretation means, said connection management  
means, and said delivery method switching means operate  
as server programs different from each other.

14. The relay apparatus according to claim 12, further  
25 comprising message transmission/reception means for a

specific video server, in addition to said message transmission/reception means.

15. The relay apparatus according to claim 12, wherein  
5 the number of said video delivery means, that of information delivery means, and that of delivery method execution means are more than one.

16. The relay apparatus according to claim 13, wherein  
10 information held by said connection management means, said video delivery means and said information delivery means are managed by using common management means such as a data-base management system.

15 17. The relay apparatus according to claim 11, wherein said video delivery means always holds latest video data by obtaining video data from a video server in accordance with a client which makes a video acquisition request at a highest speed.

20 18. The relay apparatus according to claim 11, wherein said information delivery means always holds latest various information by obtaining various information from a video server in accordance with a client which  
25 makes a request for each information at a highest speed.

19. The relay apparatus according to claim 11, wherein a remote video relay system and its client perform communication with each other by using the HTTP protocol.

5 20. A relay-apparatus control method for controlling a relay apparatus for transferring information from at least one server to at least one client via a network, said server performing stream information service in its own information transmission format, said method  
10 comprising:

a first communication step of performing communication with said client in a communication method in correspondence with said client;

a second communication step of performing  
15 communication with said server in a communication method in correspondence with said server;

         a first conversion step of converting a request message to said server, received at said first communication step from said client, to a request  
20 message for said server; and

a second conversion step of converting information, received at said second communication step from said server, to information in a format for said client.

25 21. A storage medium containing program codes, which function as a relay apparatus for transferring

information from at least one server to at least one client via a network, said server performing stream information service in its own information transmission format, when read and executed by a computer, said

5 program codes includes program codes which function as:

first communication means for performing communication with said client in a communication method in correspondence with said client;

second communication means for performing

10 communication with said server in a communication method in correspondence with said server;

first conversion means for converting a request message to said server, received via said first communication means from said client, to a request

15 message for said server; and

second conversion means for converting information, received via said second communication means from said server, to information in a format for said client.